

# Clean Air

**Grade Levels:**

**7-9**

**Question:**

**Does indoor or outdoor air have more particulate pollution?**

**Possible Hypotheses:**

**Inside air has more particulate pollution.**

**Outside air has more particulate pollution.**

**Materials:**

**14 white index cards**

**Petroleum jelly**

**Cotton swabs**

**Magnifying glass**

**Procedure:**

1. Label the index cards 1-I to 7-I and 1-O to 7-O.
2. Smear petroleum jelly on cards 1-I and 1-O using a cotton swab, and tape them to the same window, 1-I on the inside and 1-O on the outside. Avoid placing the cards near a door.
3. After 24 hours, take the cards down and repeat the procedure with the cards labeled 2-I and 2-O cards. Make a note of the weather each day.
4. Do this for a week, replacing the cards each day. Examine the cards closely and compare them to each other and to previous sets.
5. Record your observations, noting any differences.
6. Repeat the experiment in a different location or at a different time of year.

**Analysis and Conclusion:**

**How does the inside and outside air compare? How does it compare in different weather, different locations and in different seasons? What do you think is the main source of particulate pollution in your area? Research and find out.**

